

# EXHIBIT A-28

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**Twenty-Eighth Supplemental Indenture**

**Dated as of December 1, 2016**

**Supplement to the Amended and Restated Indenture  
Dated as of April 22, 2005**

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**PACIFIC GAS AND ELECTRIC COMPANY**  
**Issuer**

**and**

**THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.**  
**Trustee**

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TWENTY-EIGHTH SUPPLEMENTAL INDENTURE, dated as of December 1, 2016 (this "Twenty-Eighth Supplemental Indenture"), by and between **PACIFIC GAS AND ELECTRIC COMPANY**, a corporation duly organized and existing under the laws of the State of California (the "Company" or the "Issuer"), and **THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.**, a national banking association organized and existing under the laws of the United States of America (formerly known as The Bank of New York Trust Company, N.A.), as Trustee under the Base Indenture (as hereinafter defined) (the "Trustee").

### RECITALS OF THE COMPANY

A. The Company and the Trustee are parties to that certain Amended and Restated Indenture, dated as of April 22, 2005 (the "Base Indenture"), as supplemented by the First Supplemental Indenture, dated as of March 13, 2007 (the "First Supplemental Indenture"), the Second Supplemental Indenture, dated as of December 4, 2007 (the "Second Supplemental Indenture"), the Third Supplemental Indenture, dated as of March 3, 2008 (the "Third Supplemental Indenture"), the Fourth Supplemental Indenture, dated as of October 21, 2008 (the "Fourth Supplemental Indenture"), the Fifth Supplemental Indenture, dated as of November 18, 2008 (the "Fifth Supplemental Indenture"), the Sixth Supplemental Indenture, dated as of March 6, 2009 (the "Sixth Supplemental Indenture"), the Seventh Supplemental Indenture, dated as of June 11, 2009 (the "Seventh Supplemental Indenture"), the Eighth Supplemental Indenture, dated as of November 18, 2009 (the "Eighth Supplemental Indenture"), the Ninth Supplemental Indenture, dated as of April 1, 2010 (the "Ninth Supplemental Indenture"), the Tenth Supplemental Indenture, dated as of September 15, 2010 (the "Tenth Supplemental Indenture"), the Eleventh Supplemental Indenture, dated as of October 12, 2010 (the "Eleventh Supplemental Indenture"), the Twelfth Supplemental Indenture, dated as of November 18, 2010 (the "Twelfth Supplemental Indenture"), the Thirteenth Supplemental Indenture, dated as of May 13, 2011 (the "Thirteenth Supplemental Indenture"), the Fourteenth Supplemental Indenture, dated as of September 12, 2011 (the "Fourteenth Supplemental Indenture"), the Fifteenth Supplemental Indenture, dated as of November 22, 2011 (the "Fifteenth Supplemental Indenture"), the Sixteenth Supplemental Indenture, dated as of December 1, 2011 (the "Sixteenth Supplemental Indenture"), the Seventeenth Supplemental Indenture, dated as of April 16, 2012 (the "Seventeenth Supplemental Indenture"), the Eighteenth Supplemental Indenture, dated as of August 16, 2012 (the "Eighteenth Supplemental Indenture"), the Nineteenth Supplemental Indenture, dated as of June 14, 2013 (the "Nineteenth Supplemental Indenture"), the Twentieth Supplemental Indenture, dated as of November 12, 2013 (the "Twentieth Supplemental Indenture"), the Twenty-First Supplemental Indenture, dated as of February 21, 2014 (the "Twenty-First Supplemental Indenture"), the Twenty-Second Supplemental Indenture, dated as of May 12, 2014 (the "Twenty-Second Supplemental Indenture"), the Twenty-Third Supplemental Indenture, dated as of August 18, 2014 (the "Twenty-Third Supplemental Indenture"), the Twenty-Fourth Supplemental Indenture, dated as of November 6, 2014 (the "Twenty-Fourth Supplemental Indenture"), the Twenty-Fifth Supplemental Indenture, dated as of June 12, 2015 (the "Twenty-Fifth Supplemental Indenture"), the Twenty-Sixth Supplemental Indenture, dated as of November 5, 2015 (the "Twenty-Six Supplemental Indenture"), the Twenty-Seventh Supplemental Indenture, dated as of March 1, 2016 (the "Twenty-Seventh Supplemental Indenture"), and this Twenty-Eighth Supplemental Indenture (this "Twenty-Eighth Supplemental Indenture," and together with the Base Indenture, the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth

Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture and the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, and the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the “Indenture”), which supplements, amends and restates that certain Indenture of Mortgage, dated as of March 11, 2004, as supplemented by the First Supplemental Indenture thereto, dated as of March 23, 2004 and the Second Supplemental Indenture thereto, dated as of April 12, 2004, providing for the issuance by the Company of an unlimited number of series of Bonds (as defined in the Base Indenture) from time to time.

B. Under the Base Indenture, the Company is authorized to establish one or more series of Bonds at any time in accordance with and subject to the provisions of the Base Indenture, and the terms of such series of Bonds may be described by a supplemental indenture executed by the Company and the Trustee.

C. The execution and delivery of this Twenty-Eighth Supplemental Indenture has been authorized by a Board Resolution (as defined in the Base Indenture).

D. Concurrent with the execution hereof, the Company has caused its counsel to deliver to the Trustee an Opinion of Counsel (as defined in the Base Indenture) pursuant to Section 13.03 of the Base Indenture, together with the documents required under Article V of the Base Indenture.

E. The Company has done all things necessary to make this Twenty-Eighth Supplemental Indenture a valid agreement of the Company, in accordance with its terms.

NOW, THEREFORE, the Company and the Trustee agree, for the benefit of each other and for the equal and proportionate benefit of Holders of the Floating Rate Senior Notes and the 4.00% Senior Notes (each as defined below) with respect to all provisions herein applicable to each such series of notes, as follows:

## ARTICLE I

### DEFINITIONS

Unless the context otherwise requires, capitalized terms used but not defined herein have the meaning set forth in the Indenture. The following additional terms are hereby established for purposes of this Twenty-Eighth Supplemental Indenture and shall have the meanings set forth in this Twenty-Eighth Supplemental Indenture only for purposes of this Twenty-Eighth Supplemental Indenture:

“**4.00% Senior Notes**” has the meaning set forth in Section 301 hereto.

**“Adjusted Treasury Rate”** means, with respect to any Redemption Date for any 4.00% Senior Notes, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such Redemption Date.

**“Calculation Agency Agreement”** means the Calculation Agency Agreement, dated as of December 1, 2016, by and between the Company and the Calculation Agent, as such agreement may be amended, modified or supplemented from time to time.

**“Calculation Agent”** means The Bank of New York Mellon Trust Company, N.A. or such other Person as the Company shall from time to time designate in accordance with the Calculation Agency Agreement.

**“Comparable Treasury Issue”** means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the 4.00% Senior Notes to be redeemed, assuming, for such purpose, that the 4.00% Senior Notes matured on June 1, 2046 (the date that is six months prior to the maturity date) (the “remaining term”), that would be used, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term.

**“Comparable Treasury Price”** means, with respect to any Redemption Date for any 4.00% Senior Notes, (1) the average of the Reference Treasury Dealer Quotations for such Redemption Date, after excluding the highest and lowest of the Reference Treasury Dealer Quotations or (2) if the Company obtains fewer than four Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

**“Floating Rate Senior Notes”** has the meaning set forth in Section 201 hereto.

**“Original Issue Date”** means December 1, 2016.

**“Primary Treasury Dealer”** means a primary U.S. Government Securities dealer in the United States.

**“Quotation Agent”** means the Reference Treasury Dealer appointed by the Company.

**“Redemption Price”** means the price at which 4.00% Senior Notes may be redeemed pursuant to Section 308(a) or Section 308(b) hereto, as applicable.

**“Reference Treasury Dealer”** means (1) each of Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Mizuho Securities USA Inc., and their respective successors, unless any of them ceases to be a Primary Treasury Dealer, in which case the Company shall substitute another Primary Treasury Dealer; and (2) any other Primary Treasury Dealer selected by the Company.

**“Reference Treasury Dealer Quotations”** means, with respect to each Reference Treasury Dealer and any Redemption Date, the average, as determined by the Company, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its

principal amount) quoted in writing to the Company by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding such Redemption Date. For purposes of this definition only, "Business Day" means any day that is not a day on which banking institutions in New York City are authorized or required by law or regulation to close.

**"Remaining Scheduled Payments"** means, with respect to each of the 4.00% Senior Notes that the Company is redeeming pursuant to Section 308(a) hereto, the remaining scheduled payments of principal and interest that would be due after the applicable Redemption Date if such 4.00% Senior Notes were not redeemed. However, if the Redemption Date is not a scheduled Interest Payment Date with respect to such 4.00% Senior Notes, the amount of the next succeeding scheduled interest payment on such 4.00% Senior Notes will be reduced by the amount of interest accrued on such 4.00% Senior Notes to the Redemption Date.

**"U.S. Government Securities"** means securities which are (a) direct obligations of the United States of America for the payment on which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the payment of which is unconditionally guaranteed as a full faith and credit obligation of the United States of America, and which in the case of (a) and (b) are not callable or redeemable at the option of the issuer thereof, and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Security or a specific payment of interest on or principal of any such U.S. Government Security held by such custodian for the account of the holder of a depository receipt, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Security evidenced by such depository receipt.

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The words "herein," "hereof" and "hereunder" and other words of similar import refer to this Twenty-Eighth Supplemental Indenture as a whole and not to any particular Article, Section or other subdivision.

## ARTICLE II

### ESTABLISHMENT OF THE FLOATING RATE SENIOR NOTES; TERMS

#### SECTION 201 *Establishment and Designation of the Floating Rate Senior Notes.*

Pursuant to the terms hereof and Section 3.01 of the Indenture, the Company hereby establishes a fifty-first series of Bonds designated as the "Floating Rate Senior Notes due November 30, 2017" (the "Floating Rate Senior Notes"). The Floating Rate Senior Notes may be reopened, from time to time, for issuances of additional Bonds of such series, and any additional Bonds issued and comprising Floating Rate Senior Notes shall have identical terms as the Floating Rate Senior Notes, except that the issue price, issue date and, in some cases, the first Interest Payment Date may differ.

SECTION 202 Form of the Floating Rate Senior Notes.

The Floating Rate Senior Notes shall be issued in the form of one or more Global Bonds in substantially the form set forth in Exhibit A hereto.

SECTION 203 Principal Amount of the Floating Rate Senior Notes.

The Floating Rate Senior Notes shall be issued in an initial aggregate principal amount of \$250,000,000.

SECTION 204 Interest Rates; Stated Maturity of the Floating Rate Senior Notes.

The rate of interest on the Floating Rate Senior Notes shall be calculated as set forth in the form of the Floating Rate Senior Notes attached as Exhibit A hereto.

The Floating Rate Senior Notes shall have a Stated Maturity of November 30, 2017.

SECTION 205 No Sinking Fund.

No sinking fund is provided for the Floating Rate Senior Notes.

SECTION 206 No Redemption.

The Floating Rate Senior Notes shall not be subject to redemption prior to their Stated Maturity.

SECTION 207 Paying Agent and Bond Registrar.

The Trustee is hereby appointed as initial Paying Agent and initial Bond Registrar for the Floating Rate Senior Notes. The Place of Payment of the Floating Rate Senior Notes shall be the Corporate Trust Office of the Trustee.

SECTION 208     Calculation Agent.

The Bank of New York Mellon Trust Company, N.A. is hereby appointed as the initial Calculation Agent for the Floating Rate Senior Notes.

SECTION 209     Global Securities; Appointment of Depositary for Global Securities.

The Floating Rate Senior Notes shall be issued in the form of one or more permanent Global Bonds as provided in Section 3.13 of the Indenture and deposited with, or on behalf of, the Depositary, or with the Trustee, as custodian for the Depositary, duly executed by the Company and authenticated by the Trustee.

The Company hereby initially appoints The Depositary Trust Company (“DTC”) to act as the Depositary with respect to all Floating Rate Senior Notes, and the Floating Rate Senior Notes shall initially be registered in the name of Cede & Co., as the nominee of DTC.

The Company and DTC have executed a Blanket Letter of Representations, and the Trustee is hereby authorized, in connection with any successor nominee for DTC or any successor Depositary, to enter into appropriate or comparable arrangements, if necessary, and shall have the same rights with respect to its actions thereunder as it has with respect to its actions under the Indenture.

None of the Company, the Trustee, any Paying Agent or any Bond Registrar will have any responsibility or liability for any aspect of Depositary records relating to, or payments made on account of, beneficial ownership interests in a Global Bond or for maintaining, supervising or reviewing any Depositary records relating to such beneficial ownership interests, or for transfers of beneficial interests in the Bonds or any transactions between the Depositary and beneficial owners.

SECTION 210     Other Terms of the Floating Rate Senior Notes.

The other terms of the Floating Rate Senior Notes shall be as expressly set forth herein and in Exhibit A.

ARTICLE III

ESTABLISHMENT OF THE 4.00% SENIOR NOTES; TERMS

SECTION 301     Establishment and Designation of the 4.00% Senior Notes.

Pursuant to the terms hereof and Section 3.01 of the Indenture, the Company hereby establishes a fifty-second series of Bonds designated as the “4.00% Senior Notes due December 1, 2046” (the “4.00% Senior Notes”). The 4.00% Senior Notes may be reopened, from time to time, for issuances of additional Bonds of such series, and any additional Bonds issued and comprising 4.00% Senior Notes shall have identical terms as the 4.00% Senior Notes, except that the issue price, issue date and, in some cases, the first Interest Payment Date may differ.

SECTION 302 Form of the 4.00% Senior Notes.

The 4.00% Senior Notes shall be issued in the form of one or more Global Bonds in substantially the form set forth in Exhibit B hereto.

SECTION 303 Principal Amount of the 4.00% Senior Notes.

The 4.00% Senior Notes shall be issued in an initial aggregate principal amount of \$400,000,000.

SECTION 304 Interest Rates; Stated Maturity of the 4.00% Senior Notes; Minimum Denomination.

The 4.00% Senior Notes shall bear interest at the rate of 4.00% per annum and shall have a Stated Maturity of December 1, 2046.

The 4.00% Senior Notes are issuable in denominations of \$2,000 and any integral multiple of \$1,000 in excess thereof.

SECTION 305 No Sinking Fund.

No sinking fund is provided for the 4.00% Senior Notes.

SECTION 306 Paying Agent and Bond Registrar.

The Trustee is hereby appointed as initial Paying Agent and initial Bond Registrar for the 4.00% Senior Notes. The Place of Payment of the 4.00% Senior Notes shall be the Corporate Trust Office of the Trustee.

SECTION 307 Global Securities; Appointment of Depositary for Global Securities.

The 4.00% Senior Notes shall be issued in the form of one or more permanent Global Bonds as provided in Section 3.13 of the Indenture and deposited with, or on behalf of, the Depositary, or with the Trustee, as custodian for the Depositary, duly executed by the Company and authenticated by the Trustee.

The Company hereby initially appoints The Depository Trust Company ("DTC") to act as the Depositary with respect to all 4.00% Senior Notes, and the 4.00% Senior Notes shall initially be registered in the name of Cede & Co., as the nominee of DTC.

The Company and DTC have executed a Blanket Letter of Representations, and the Trustee is hereby authorized in connection with any successor nominee for DTC or any successor Depositary, to enter into appropriate or comparable arrangements, if necessary, and shall have the same rights with respect to its actions thereunder as it has with respect to its actions under the Indenture.

None of the Company, the Trustee, any Paying Agent or any Bond Registrar will have any responsibility or liability for any aspect of Depositary records relating to, or payments made on

account of, beneficial ownership interests in a Global Bond or for maintaining, supervising or reviewing any Depositary records relating to such beneficial ownership interests, or for transfers of beneficial interests in the Bonds or any transactions between the Depositary and beneficial owners.

SECTION 308 Optional Redemption of the 4.00% Senior Notes.

(a) Subject to the terms and conditions of the Indenture, at any time prior to June 1, 2046 (the date that is six months prior to the Maturity Date), the 4.00% Senior Notes are redeemable at the option of the Company in whole or in part at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the 4.00% Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the 4.00% Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such 4.00% Senior Notes was June 1, 2046 (the date that is six months prior to the Maturity Date), discounted to the Redemption Date on a semiannual basis at the Adjusted Treasury Rate, plus 20 basis points;

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date.

(b) Subject to the terms and conditions of the Indenture, at any time on or after June 1, 2046 (the date that is six months prior to the Maturity Date), the 4.00% Senior Notes are redeemable at the option of the Company in whole or in part at 100% of the principal amount of the 4.00% Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date.

(c) The Redemption Price shall be calculated assuming a 360-day year consisting of twelve 30-day months.

(d) The Company shall calculate the Redemption Price for the redemption of any 4.00% Senior Notes pursuant to Section 308(a) or Section 308(b), and notify the Trustee of such Redemption Price before it sends the amount of the Redemption Price to the Trustee or any Paying Agent.

(e) Notice of any redemption pursuant to Section 308(a) or Section 308(b) shall be given to Holders of the 4.00% Senior Notes not less than ten (10) days nor more than sixty (60) days prior to the Redemption Date in the manner set forth in Section 6.04 of the Indenture and by e-mail to the Depositary; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the 4.00% Senior Notes being redeemed. Notwithstanding Section 6.02 of the Indenture, if the Company elects to redeem 4.00% Senior Notes pursuant to Section

308(a) or Section 308(b) hereof, it shall give written notice to the Trustee of such Redemption Date and of the principal amount of the 4.00% Senior Notes to be redeemed at least twenty (20) days prior to the redemption date fixed by the Company (unless a shorter notice shall be satisfactory to the Trustee).

SECTION 309     *Other Terms of the 4.00% Senior Notes.*

The other terms of the 4.00% Senior Notes shall be as expressly set forth herein and in Exhibit B.

ARTICLE IV  
MISCELLANEOUS

SECTION 401     *Concerning the Trustee.*

In acting under and by virtue of this Twenty-Eighth Supplemental Indenture, the Trustee shall have all of the rights, protections and immunities given to it in the Base Indenture. The Trustee shall have no responsibility for the validity or sufficiency of this Twenty-Eighth Supplemental Indenture.

SECTION 402     *Application of Twenty-Eighth Supplemental Indenture.*

Except as provided herein, each and every term and condition contained in this Twenty-Eighth Supplemental Indenture that modifies, amends or supplements the terms and conditions of the Indenture shall apply only to the Floating Rate Senior Notes and the 4.00% Senior Notes established hereby and not to any other series of Bonds established under the Indenture. Except as specifically amended and supplemented by, or to the extent inconsistent with, this Twenty-Eighth Supplemental Indenture, the Indenture shall remain in full force and effect and is hereby ratified and confirmed.

SECTION 403     *Effective Date of Twenty-Eighth Supplemental Indenture.*

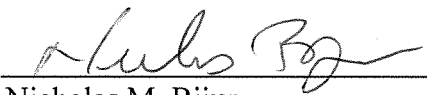
This Twenty-Eighth Supplemental Indenture shall be effective upon the execution and delivery hereof by each of the parties hereto.

SECTION 404     *Counterparts.*

This Twenty-Eighth Supplemental Indenture may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Twenty-Eighth Supplemental Indenture to be duly executed by their respective officers hereunto duly authorized, all as of the day and year first above written.

**PACIFIC GAS AND ELECTRIC COMPANY,**  
as Issuer

By:   
Name: Nicholas M. Bijur  
Title: Vice President and Treasurer

**THE BANK OF NEW YORK MELLON TRUST  
COMPANY, N.A.,**  
as Trustee

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

IN WITNESS WHEREOF, the parties hereto have caused this Twenty-Eighth Supplemental Indenture to be duly executed by their respective officers hereunto duly authorized, all as of the day and year first above written.

**PACIFIC GAS AND ELECTRIC COMPANY,**  
as Issuer

By: \_\_\_\_\_  
Name: Nicholas M. Bijur  
Title: Vice President and Treasurer

**THE BANK OF NEW YORK MELLON TRUST  
COMPANY, N.A.,**  
as Trustee

By: Valerie Boyd  
Name: Valerie Boyd  
Title: Vice President

**Signature Page to Twenty-Eighth Supplemental Indenture**

## EXHIBIT A

### FORM OF FLOATING RATE SENIOR NOTES DUE NOVEMBER 30, 2017

THIS SENIOR NOTE IS A BOND AND A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SENIOR NOTES IN DEFINITIVE FORM, THIS SENIOR NOTE MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS SENIOR NOTE CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY SENIOR NOTE CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT : \$250,000,000	ORIGINAL ISSUE DATE: December 1, 2016	INTEREST RATE: 3-month LIBOR plus 0.20% per annum
MATURITY DATE: November 30, 2017	INTEREST PAYMENT DATES: February 28, 2017, May 30, 2017, August 30, 2017 and the Maturity Date	THIS SENIOR NOTE IS A: <input checked="" type="checkbox"/> Global Book-Entry Bond <input type="checkbox"/> Certificated Bond
REGISTERED OWNER: Cede & Co., as nominee of The Depository Trust Company		

PACIFIC GAS AND ELECTRIC COMPANY  
FLOATING RATE SENIOR NOTES DUE NOVEMBER 30, 2017  
(Floating Rate)

No. R-  
CUSIP No: 694308HQ3

Principal Amount: \$

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Original Issue Date stated above or, in the case of a Floating Rate Senior Note due November 30, 2017 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, quarterly in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above until the principal hereof is paid or made available for payment. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Floating Rate Senior Note due November 30, 2017 (this "Senior Note," and together with all other Floating Rate Senior Notes due November 30, 2017, the "Senior Notes") (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the 15<sup>th</sup> day preceding such Interest Payment Date, as applicable; provided, however, that interest payable at the Maturity Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of a 360-day year and the actual days elapsed.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of

principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: \_\_\_\_\_, 2016

PACIFIC GAS AND ELECTRIC COMPANY

By: \_\_\_\_\_

Name: David S. Thomason

Title: Vice President, Chief Financial  
Officer and Controller

By: \_\_\_\_\_

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as Bonds of the Fifty-First Series referred to in the within-mentioned Indenture.

Dated: \_\_\_\_\_, 2016

THE BANK OF NEW YORK MELLON TRUST  
COMPANY, N.A., *As Trustee*

By: \_\_\_\_\_  
*Authorized Signatory*

## Reverse of Senior Note

This Floating Rate Senior Note due November 30, 2017 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under an Amended and Restated Indenture, dated as of April 22, 2005 (the "Base Indenture"), as heretofore supplemented and as further supplemented by a Twenty-Eighth Supplemental Indenture, dated as of December 1, 2016 (as so supplemented, and together with all additional indentures supplemental thereto, and any constituent instruments establishing the terms of particular Bonds, being herein called the "Indenture"), between the Company and The Bank of New York Mellon Trust Company, N.A. (formerly The Bank of New York Trust Company, N.A.), as Trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is one of the Bonds of the fifty-first series designated as the Floating Rate Senior Notes due November 30, 2017, established by the Company under the Indenture. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

The interest rate on the Senior Notes will be reset quarterly on February 28, 2017, May 30, 2017 and August 30, 2017 (each, an "Interest Reset Date"). The Senior Notes will bear interest at a per annum rate equal to three-month LIBOR (as defined below) for the applicable Interest Reset Period or Initial Interest Period (each as defined below) plus 0.20% (20 basis points). The interest rate for the Initial Interest Period will be three-month LIBOR, determined as of two London Business Days prior to the Original Issue Date, plus 0.20% (20 basis points) per annum, which shall be 1.13067%.

The "Initial Interest Period" will be the period from and including the Original Issue Date to but excluding the initial Interest Reset Date. Thereafter, each "Interest Reset Period" will be the period from and including an Interest Reset Date to but excluding the immediately succeeding Interest Reset Date; provided that the final Interest Reset Period for the Senior Notes will be the period from and including the Interest Reset Date immediately preceding the Maturity Date of such Senior Notes to but excluding the Maturity Date.

If any Interest Reset Date would otherwise be a day that is not a Business Day, the Interest Reset Date will be postponed to the immediately succeeding day that is a Business Day, except that if that Business Day is in the immediately succeeding calendar month, the Interest Reset Date shall be the immediately preceding Business Day.

The interest rate in effect on each day will be (i) if that day is an Interest Reset Date, the interest rate determined as of the Interest Determination Date (as defined below) immediately preceding such Interest Reset Date or (ii) if that day is not an Interest Reset Date, the interest rate determined as of the Interest Determination Date immediately preceding the most recent Interest Reset Date or the Original Issue Date, as the case may be.

The interest rate applicable to each Interest Reset Period commencing on the related Interest Reset Date, or the Original Issue Date in the case of the Initial Interest Period, will be the

rate determined as of the applicable Interest Determination Date. The “Interest Determination Date” will be the second London Business Day immediately preceding the Original Issue Date, in the case of the initial Interest Reset Period, or thereafter, will be the second London Business Day immediately preceding the applicable Interest Reset Date. With respect to any Interest Determination Date, the Calculation Agent will determine three-month LIBOR in accordance with the following provisions:

(i) LIBOR is the rate for deposits in U.S. dollars for the three-month period which appears on Reuters Screen LIBOR01 Page (as defined below) at approximately 11:00 a.m., London time, on the applicable Interest Determination Date. “Reuters Screen LIBOR01 Page” means the display designated on page “LIBOR01” on Reuters Screen (or such other page as may replace the LIBOR01 page on that service, any successor service or such other service or services as may be nominated by the British Bankers’ Association for the purpose of displaying London interbank offered rates for U.S. dollar deposits). If no rate appears on Reuters Screen LIBOR01 Page, LIBOR for such Interest Determination Date will be determined in accordance with the provisions of paragraph (ii) below.

(ii) With respect to an Interest Determination Date on which no rate appears on Reuters Screen LIBOR01 Page as of approximately 11:00 a.m., London time, on such Interest Determination Date, the Calculation Agent shall request the principal London offices of each of four major reference banks (which may include affiliates of the underwriters) in the London interbank market selected by the Company to provide the Calculation Agent with a quotation of the rate at which deposits of U.S. dollars having a three-month maturity, commencing on the second London Business Day immediately following such Interest Determination Date, are offered by it to prime banks in the London interbank market as of approximately 11:00 a.m., London time, on such Interest Determination Date in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time. If at least two such quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of such quotations as calculated by the Calculation Agent. If fewer than two quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of the rates quoted as of approximately 11:00 a.m., New York City time, on such Interest Determination Date by three major banks (which may include affiliates of the underwriters) selected by the Company for loans in U.S. dollars to leading European banks having a three-month maturity commencing on the second London Business Day immediately following such Interest Determination Date and in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time; provided, however, that if the banks selected as aforesaid by the Company are not quoting such rates as mentioned in this sentence, LIBOR for such Interest Determination Date will be LIBOR determined with respect to the immediately preceding Interest Determination Date.

All percentages resulting from any calculation of any interest rate for the Senior Notes will be rounded, if necessary, to the nearest one hundred thousandth of a percentage point, with five one-millionths of a percentage point rounded upward (e.g., 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655)), and all dollar amounts will be rounded to the nearest cent, with one-half cent being rounded upward.

Promptly upon such determination, the Calculation Agent will notify the Company and the Trustee (if the Calculation Agent is not the Trustee) of the interest rate for the new Interest Reset Period. Upon request of a Holder of the Senior Notes, the Calculation Agent will provide to such Holder the interest rate in effect on the date of such request and, if determined, the interest rate for the next Interest Reset Period.

All calculations made by the Calculation Agent for the purposes of calculating interest on the Senior Notes shall be conclusive and binding on the Holders of the Senior Notes and the Company, absent manifest errors.

“Business Day” means any day (1) that is not a Saturday or Sunday and that is not a day on which banking institutions are authorized or obligated by law or executive order to close in The City of New York and, for any place of payment outside of The City of New York, in such place of payment, and (2) that is also a “London Business Day”, which is a day on which dealings in deposits in U.S. dollars are transacted in the London interbank market.

Interest will be payable on February 28, 2017, May 30, 2017, August 30, 2017 and on the Maturity Date (each an “Interest Payment Date”). In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day, then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable, except that if such Business Day is in the next succeeding calendar month, such Interest Payment Date shall be the immediately preceding Business Day. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day with the same force and effect as if made on the date payment was originally payable, and no interest on such payment shall accrue for the period from and after maturity.

Unless otherwise specified on the face hereof, interest payments, if any, will be the amount of interest accrued from and including the last date in respect of which interest has been paid or duly provided for (or from and including the Original Issue Date stated above if no interest has been paid or provided for with respect to this Senior Note) to but excluding the Interest Payment Date or the Maturity Date. Accrued interest hereon from the Original Issue Date stated above or from the last date to which interest hereon has been paid is calculated by multiplying the face amount hereof by an accrued interest factor. Such accrued interest factor is computed by adding the interest factor calculated for each day from the Original Issue Date stated above or from the last date to which interest shall have been paid, to the date for which accrued interest is being calculated. The interest factor for each day shall be computed by dividing the interest rate applicable to such day by 360. All percentages resulting from any calculation hereon will be rounded to the nearest one hundred-thousandth of a percentage point, with five-one millionths of a percentage point rounded upwards. For example, 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655). All dollar amounts used in or resulting from any calculation hereon will be rounded to the nearest cent.

The interest rate on the Senior Notes will in no event be higher than the maximum rate permitted by California law as the same may be modified by United States law of general applicability.

This Senior Note shall not be subject to redemption prior to its Stated Maturity.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that if the Bonds of any series shall have been issued in more than one Tranche and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such Tranches, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all Tranches so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of

at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of California without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim

based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

## ASSIGNMENT FORM

To assign this Senior Note, fill in the form below: (I) or (we) assign and transfer this Senior Note to

(Insert assignee's soc. sec. or tax I.D. no.)

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(Print or type assignee's name, address and zip code)

and irrevocably appoint \_\_\_\_\_  
to transfer this Senior Note on the books of the Company. The agent may substitute another to act for him.

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Date: \_\_\_\_\_

Your signature: \_\_\_\_\_  
(Sign exactly as your name appears on the face of this Senior Note)

Tax Identification No.: \_\_\_\_\_

### SIGNATURE GUARANTEE:

\_\_\_\_\_  
Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Bond Registrar, which requirements include membership or participation in the Securities Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Bond Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

## EXHIBIT B

### FORM OF 4.00% SENIOR NOTES DUE DECEMBER 1, 2046

THIS SENIOR NOTE IS A BOND AND A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SENIOR NOTES IN DEFINITIVE FORM, THIS SENIOR NOTE MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS SENIOR NOTE CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY SENIOR NOTE CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT : \$400,000,000	ORIGINAL ISSUE DATE: December 1, 2016	INTEREST RATE: 4.00% per annum
MATURITY DATE: December 1, 2046	INTEREST PAYMENT DATES: June 1 and December 1, commencing June 1, 2017	THIS SENIOR NOTE IS A: <input checked="" type="checkbox"/> Global Book-Entry Bond <input type="checkbox"/> Certificated Bond
REGISTERED OWNER: Cede & Co., as nominee of The Depository Trust Company		

PACIFIC GAS AND ELECTRIC COMPANY  
4.00% SENIOR NOTES DUE DECEMBER 1, 2046  
(Fixed Rate)

No. R-  
CUSIP No: 694308HR1

Principal Amount: \$

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Original Issue Date stated above or, in the case of a 4.00% Senior Note due December 1, 2046 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2017 at the rate of 4.00% per annum until the principal hereof is paid or made available for payment. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 4.00% Senior Note due December 1, 2046 (this "Senior Note," and together with all other 4.00% Senior Notes due December 1, 2046, the "Senior Notes") (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15th and November 15th preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from December 1, 2016 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the

payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: \_\_\_\_\_, 2016

PACIFIC GAS AND ELECTRIC COMPANY

By: \_\_\_\_\_

Name: David S. Thomason

Title: Vice President, Chief Financial  
Officer and Controller

By: \_\_\_\_\_

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as Bonds of the Fifty-Second Series referred to in the within-mentioned Indenture.

Dated: \_\_\_\_\_, 2016

THE BANK OF NEW YORK MELLON TRUST  
COMPANY, N.A., *As Trustee*

By: \_\_\_\_\_  
*Authorized Signatory*

## Reverse of Senior Note

This 4.00% Senior Note due December 1, 2046 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under an Amended and Restated Indenture, dated as of April 22, 2005 (the "Base Indenture"), as heretofore supplemented and as further supplemented by a Twenty-Eighth Supplemental Indenture, dated as of December 1, 2016 (as so supplemented, and together with all additional indentures supplemental thereto, and any constituent instruments establishing the terms of particular Bonds, being herein called the "Indenture"), between the Company and The Bank of New York Mellon Trust Company, N.A. (formerly The Bank of New York Trust Company, N.A.), as Trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is one of the Bonds of the fifty-second series designated as the 4.00% Senior Notes due December 1, 2046 established by the Company under the Indenture. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company ("Optional Redemption"), in whole or in part, (a) at any time prior to June 1, 2046 (the date that is six months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was June 1, 2046 (the date that is six months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 20 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after June 1, 2046 (the date that is six months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder's registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar

amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that if the Bonds of any series shall have been issued in more than one Tranche and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such Tranches, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all Tranches so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their

consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$2,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior

Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of California without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

## ASSIGNMENT FORM

To assign this Senior Note, fill in the form below: (I) or (we) assign and transfer this Senior Note to

\_\_\_\_\_  
(Insert assignee's soc. sec. or tax I.D. no.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Print or type assignee's name, address and zip code)

and irrevocably appoint \_\_\_\_\_  
to transfer this Senior Note on the books of the Company. The agent may substitute another to act for him.

\_\_\_\_\_  
Date:

Your signature: \_\_\_\_\_  
(Sign exactly as your name appears on the face of this Senior Note)

Tax Identification No.: \_\_\_\_\_

SIGNATURE GUARANTEE:

\_\_\_\_\_

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Bond Registrar, which requirements include membership or participation in the Securities Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Bond Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.